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Federal-State Cooperative

Snow Surveys and Water Supply Forecasts

for

**OREGON** 

SOIL CONSERVATION SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE
AND
OREGON AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies named above in cooperation with the Oregon State Engineer, U.S. Forest Service, National Park Service and other Federal, State and local organizations.

\_\_\_\_ AS OF\_\_\_\_

MARCH 1, 1955

#### TO RECIPIENTS OF COOPERATIVE SNOW SURVEY AND WATER SUPPLY FORECAST REPORTS:

Forecasts by U. S. Weather Bureau of total annual streamflow October-September, inclusive, at more than 300 gaging stations are issued monthly January through May in the publication WATER SUPPLY FORECASTS FOR THE WESTERN UNITED STATES.

Weather Bureau forecasts of runoff presented in that bulletin are computed from procedures based on mathematical analysis of the relation between precipitation and runoff.

The Weather Bureau bulletins may be secured by writing to:

Hydrologist in Charge River Forecast Center U. S. Weather Bureau 712 Federal Office Building Kansas City 6, Missouri

For current information on local river and flood conditions, reference should be made to the appropriate River District Office listed below:

Meteorologist in Charge......Columbia River and Weather Bureau Office tributaries below Grand 320 Custom House Coulee Dam, except the Portland 9, Oregon

Snake River and tributaries.

Meteorologist in Charge.....Oregon and California Weather Bureau Airport Station Box 1072 Medford, Ore.

Coast drainage, from and including Umpqua River Basin, southward to and including Klamath River and tributaries; the Great Basin in Oregon

State of Oregon

#### FEDERAL-STATE COOPERATIVE

### SNOW SURVEYS AND WATER SUPPLY FORECASTS

FOR

OREGON

Issued

March 9, 1955

Report Prepared by

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Soil Conservation Service and Oregon Agricultural Experiment Station 209 S. W. 5th Avenue Portland 4, Oregon

Issued by:

Harold E. Tower State Conservationist Soil Conservation Service

F. Earl Price Director Oregon Agricultural Experiment Station



Number Name Location Elev. Sec. Twp. Rge.	2002 Crowder Flat (cal.) 30 L/N 115 S700 22012 Fourmile Lake 9 565 56 600 22013 [Purelle Lake 19 505 56 56 600 22015 [Purelle Lake 19 505 56 500 22015 [Purelle Lake 19 50 500 2201] [Purelle Lake 19 50 50 500 2201] [Purelle Lake 19 50 50 50 50 50 50 50 50 50 50 50 50 50	2003 Canasa Creek 5 395 215 5720 2003 Cox Flat 105 2003 2005 Quart Plat (cal ) 5 75 105 5750 2005 Quart Boundain (cal ) 21 18N 115 5700 2005 Street Line (cal ) 21 18N 115 5700 2005 Street Line MARNER LAKE BASIN 5 500 2003 Canas Creek 5 500 2003 Sherman Valley 15 375 215 6500	GUANO LAKE BASIN  1941 Bald Kountain (Nev) 17 L/5N 21E 6720  ABERT LAKE BASIN  20011 Cox Flet 20014 Mill Greek 1 345 17E 6200 20010 Sherman Valley 15 375 21E 6600	2002 Supple LAKE BASIN  2002 Supple LAKE BASIN  21F12 Silver Creek 25 & 26 295 135 4900  HALHEDE & HAREZ LAKES BASIN  1802 Fish Greek 1867 ille-sumpte 1867 Ise Sumpte 1867 Spring 1967 Sore Wountean 1967 Sore Wountean 197 Sore Wountean 1987 Sare Redge 1987 Sare Redge 1987 Stare Redge 1988 Stare	(Trout and Mittehouse Greeks)
Number Name Location Elev. Sec. Twp. Rge.	2251 Detroit (town) 1 105 55 1500-7 2252 Ostool Ossa 7 105 55 1500-7 2155 Hogg Fase 2 15 105 55 1550 1505 1505 1505 1505 15	2273 Cascade Surmit 7 235 6E 1680 2276 McOrdels Springs 36 213 16 2120 2277 Oakridsan Oam 16 213 11 110 2277 Oakridsan Oam 16 213 11 110 2277 Railroad Oaspase 27 225 5E 2750 2277 Waldo Lake 18 18 22 6E 5500 2271 Willamette Pass 21 245 546 5600 COAST PORK WILLAMETTE RIVER BASIN	12 31 22 22 35 35 7ER BASIN	DREGON & CALIFORNIA COAST DRAINAGE   Champion   12 235 1E     Champion   29 775 68     Champion   29 775 18     Champion   20 775 18     Champion   20 725 34     Champion   20 725 68     Champio	22013 Billia Greek Divide 30 585 58 5300 22012 Pourfile Lake 9 5 55 500 2301 Goolsway Pour Lake 9 5 55 50 50 50 50 50 50 50 50 50 50 50 5
Number Name Location Elev. Sec. Twp. Rge.	University Strike   24 & 25   15   352   16   352   17   352   18   352   18   352   18   352   18   352   18   352   18   352   18   352   18   352   18   352   18   352   18   352   18   352   3	1959   Less Summit   28   156   289   5293     1806   Ludcy Strike   28   32   256     2012   Marks Greek   25   128   128     2012   Choice Medicar   11   13   200     2012   Choice Medicar   11   13   200     2013   Schoolman   13   200     2013   Starr Haige   20   155   316     2013   Tipfon   CROCKED RIVER BASIN   105   35   55     2013   Tipfon   CROCKED RIVER BASIN   201   25   25     2013   CROCKED RIVER BASIN   201   201   201     2013   201   201   201     2014   2015   201   201     2015   2015   2015   201     2015   2015   2015   2015     2015   2015   2015   2015     2015   2015   2015   2015     2015   2015   2015   2015     2015   2015   2015   2015     2015   2015   2015   2015     2015   2015   2015   2015     2015   2015   2015   2015     2015   2015   2015   2015     2015   2015   2015   2015     2015   2015   2015   2015     2015   2015   2015   2015     2015   2015   2015   2015     2015   2015   2015   2015     2015   2015   2015   2015     2015   2015   2015   2015     2015   2015   2015   2015     2015   2015     2015   2015   2015     2015   2015   2015     2015   2015   2015     2015   2015     2015   2015     2015   2015     2015   2015     2015   2015     2015   2015     2015   2015     2015   2015     2015   2015     2015   2015     2015   2015     2015   20	0err  Mrss Greak  25 128 198  Ochoco Mendowa  21 135 208  Snow Hountain  1 195 268  Tamereck  Upper DESCHUTAS RIVAR BASIN  Bleck Plus Spring  11 165 28  Caddwell Ranch  30 215 68	2277 Cherles out the control of 25 186 1860 2177 Cherles out the control of 25 18 6E 1860 2178 Cherles out the control of 25 18 6E 1860 2178 Cherles out the control of 25 18 18 18 18 18 18 18 18 18 18 18 18 18	2106   Prooks Meadows   2   25   10E   1300
Name Location Elev. Sec. Twp. Rge.	UPPER. COLUMBIA DRAINAGE   Lower Snoke in Oregan    OwTHER RUZE BASIN   26 275 36E 1200     Email	nege and partially reflect snow conditions  of creek  (Nev) 31 L6M 56E 7800.  (Solin, Lower (Nev) 25 L5M 395 6700  Creek, Upper (Nev) 31 L6M 395 6700  Creek (Nev) 31 L6M 395 7800  Title Pauk (Nev) 31 L6M 395 7800  Title Pauk (Nev) 31 L6M 395 7800  Title Pauk (Nev) 31 L6M 395 7800  Est Creek  (Nev) 39 390 555 5700  Marsh Ranch (Nev) 3 390 555 5700	(Nev) 6 LLN 585 R RTVER BASIN 21 155 355 Pring 24 155 346 10 145 3348 23 188 328 23 215 345	BURNY RIVER BASIN  ory Creek  * Nouvier.  16 118 368 5950 *  * Nouvier.  10 118 368 5960 *  10 ortor  10 ortor  11 00 3548 5100  FOUNDER RIVER BASIN  10 3548 5100  FOUNDER RIVER BASIN  10 17 378 7125  FOUNDER RIVER BASIN  10 17 378 5100  FOUNDER RIVER BASIN  10 18 318 5100  FOUNDER BASIN  11 05 378 5100  FOUNDER BASIN  12 11 05 378 5100  FOUNDER BASIN  13 11 05 378 5100  FOUNDER BASIN  14 10 95 38 5100  FOUNDER BASIN  15 10 95 368 5175  FOUNDER BASIN  16 10 95 38 5175  FOUNDER BASIN  17 10 95 38 5175  FOUNDER BASIN  18 10 95 38 5175  FOUNDER BASIN  FOUNDE	DER RASIN  35 68 1/58  16 14 16 17 18 18 18 18 18 18 18 18 18 18 18 18 18

Blue Mountein Spring Crane Prairie Eldorado Pass Lake Creek Rock Spring Stinking Weter

18E16 18E20 18E20 18E18 18F1

(The following courses are adjacent to but obythee Drainegs and partially reflect snow on this watershed.)

Bear Creek Buckskin, Lower Buckskin, Upper Fox Creek Granite Peak Martin Creek Hidsey Hidsey Affector

Barney Creek Blue Mountain Summit Ocoley Mountain Gold Center Tipton

18E1 18E2 17E 18E8 18E8

Schneider Meadows

1708

Anthony Lake Beaver Reservoir Bourse Ocology Mountain Eilertson Meadows Gold Center Goodrich Lake Summit Springs Taylor Green

1865 1765 1765 1863 1863 1865 1865 1865 18015 1707

Ameroid Lake No. 1
Ameroid Lake No. 2
Authory Lake No. 2
Beaver Reservoir
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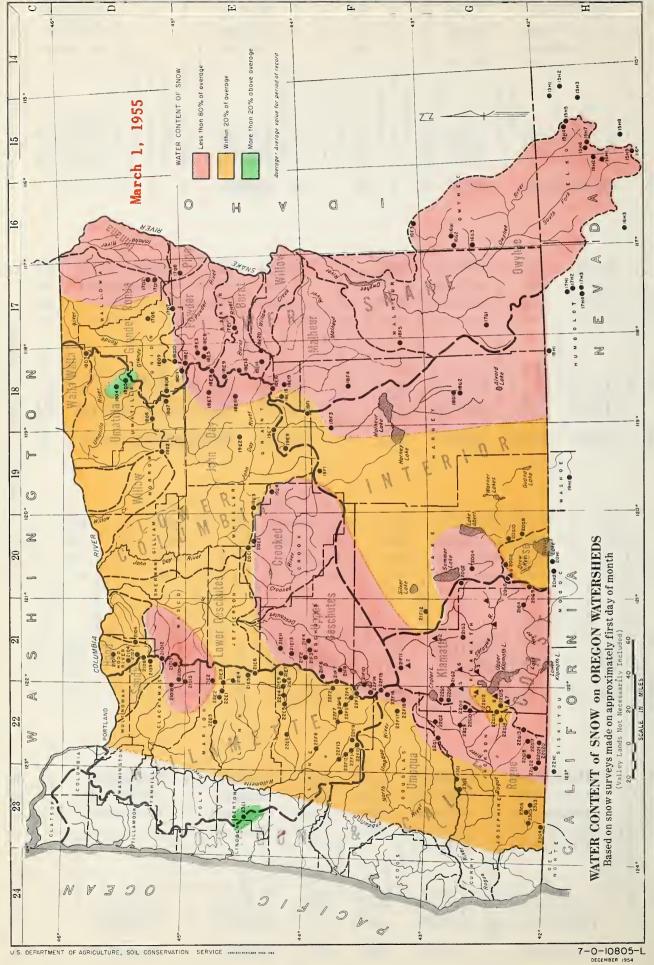
1701 1702 1861 1809 1809 1809 1706 1706 1707 1803

Arbuckle Nountain Emigrent Springs

1902 1804

Number

Barren valley
Big Brad
Cliffe
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Cond Corest
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Lower Greek, Joser
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Salve City
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## WATER SUPPLY OUTLOOK

#### FOR OREGON

### March 1, 1955

Water supplies for Oregon farmers and other users will be short this spring and summer in much of central and eastern Oregon and in a part of the Rogue watershed unless March and early April storms produce about 3 to 4 times the normal amount of moisture.

SNOW-COVER: February's snowfall was only 79 percent average in spite of recent heavy storms. Results of snow surveys on 162 snow courses show the present water content of the snow-cover is three-fourths average at this date.

Water content of snow is less than 80 percent average in the Owyhee, Malheur, Burnt, Powder, Imnaha, Wallowa, John Day, Crooked, Deschutes, Rogue, Klamath and Chewaucan watersheds. A notable high spot occurs in the Blue Mountains of the Umatilla watershed where more than 120 percent average snow was measured. (See pages 8-17 for additional snow data.)

SOIL-MOISTURE: Mountain soils are dry under the snow-pack. Many snow surveyors have reported dust instead of the usual damp or wet soils under the snow. This condition is general in eastern and southern Oregon watersheds. These dry soils will soak up much snow-melt water that would otherwise become a part of the streamflow.

Fewer reports of frozen soil under the snow were received this month. There is less chance now of a sudden snow-melt producing rapid runoff with little or no contribution to watershed soils.

RESERVOIRED WATER: Storage water is short with 18 out of 26 reporting reservoirs less than half full. Total storage is less than two-thirds of that of a year ago and only 79 percent average. Twelve reservoirs are discouragingly low in storage. These are Antelope, Owyhee, Warm-Springs, Unity, Wallowa Lake, McKay, Ochoco, Detroit, Lookout Point, Emigrant Gap, Gerber and Drew. Even so, stored water will "save the day" in many of these areas. (See page 7 for additional reservoir data.)

PRECIPITATION: Fall precipitation was only half normal (1943-52) and the winter months are little better, having produced only 59 percent average. March itself was another short month with only 48 percent average precipitation. Bend and the surrounding upper Deschutes area is still the dryest area of the state. (See page 19 for additional precipitation data.)



STREAMFLOW: Below average streamflow is forecast throughout the state

except for the Umatilla River which should be near the 1943-52 normal.

Expected shortages will be most acute in the Owyhee, Malheur, Burnt,
Powder, Pine, Imnaha, Wallowa, John Day, Crooked, Tumalo, Squaw, White,
Mile Creeks, Rogue (except Applegate and Illinois), Klamath, Chewaucan,
Silver Lake, Alvord Lake and Harney Lake watersheds. Storage water will
alleviate some of these shortages. (See pages 2-6 for individual stream
forecasts.)

February streamflow  $^2$  has varied from a low of 18 percent average (1938-52) on the Owyhee to 86 percent average at Klamath Lake. (See page 18 for current streamflow data.)

<sup>1</sup> From preliminary data furnished by U. S. Weather Bureau, Portland, Oregon. From preliminary data furnished by U. S. Geological Survey, Portland, Oregon.



The following summarized runoff forecasts are based principally on mountain snow cover and on the assumption that precipitation and temperature during the forecast period will be near average. Appreciable deviations from normal of temperature and/or precipitation during the forecast period will correspondingly modify these forecasts.

Wiese Torecasus.						
			eamflow in	Thousands	of Acre h	
Basin, Stream	Forecast	%	Fore-			10 - Yr.
and	Runoff	10-Yr.	cast	Measured		Average
Station	1955	Ave.	Period	1953	1952	1943-52
Columbia River nr. The Dalles**	76400.0	74	Apr-Sept.		98619.0	102982.0
			LUMBIA BASI MAKE IN OREC			
O						
Owyhee River Basin Owyhee Reservoir net inflow	170.0	29	Mar-July	332.0	1556.0	584.2
Malheur River Basin						
Malheur River, nr. Drewsey	36.7	ԼւԼւ	Apr-Sept.	106.4	192.2	83.7
Malheur River, N.Fk., at Beulah <sup>2</sup>	32.0	49	Apr-Sept.	80.1	122.0	65.2
Burnt River Basin Burnt River, nr. Hereford <sup>3</sup>	19.0	41	Apr-Sept.	61.4	65.2	46.5
Powder River Basin						
Powder River,	35.0	53	Apr-Sept.	93.0	88.7	66.0
at Salisbury	34.0	53	Apr-July	90.1	87.1	64.1
av Sarisbury	24.0	75	ubi -oail	70.€1	01.1	011.1
Grande Ronde River						
Basin Imnaha River	125.0	1.2	A C+	250.0	101 2	200 0
at Imnaha	125.0	41	Apr-Sept.	359.9	424.3	308.0
Wallowa River, E.Fk.,	6.0	52	Apr-Sept.	14.4	12.6	77 6
nr. Joseph J	4.5	48				11.6
Hurricane Creek,	28.0	58	Apr-July	10.9	10.3	9.3
nr. Joseph	20.0	)0	Apr-Sept.	С	55.3	48.2
Lostine River,	80.0	60	Ann Cont		71.C 0	720.2
nr. Lostine	00.5	00	Apr-Sept.	С	145.8	132.3
Bear Creek,	40.0	53	Apr-Sept.	С	79.7	75.0
nr. Wallowa			pr bopo.	Č	12.1	15.0
Catherine Creek,	58.0	79	Apr-Sept.	96.1	90.6	73.3
nr. Union	- (		•			
Grande Ronde River	160.0	82	Apr-Sept.	234.9	183.2	194.4
at LaGrande						

<sup>\*</sup>Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. 1954 records not available at this time.

<sup>\*\*</sup>Forecast by Boise Office, Soil Conservation Service. Corrected for storage.

<sup>1</sup> From U.S.B.R. records of inflow.

<sup>20</sup>bserved flow / change in storage in Agency Valley Reservoir. 30bserved flow plus change in storage in Unity Reservoir.

<sup>4</sup>Includes power plant tailrace.

CRecords not available.



Streamflow Forecasts	- March 1,	1955 (Co	nt'd.)			3.
	Se		reamflow in	Thousands	of Acre F	eet
Basin, Stream	Forecast	%	Fore-			10 - Yr.
and	Runoff	10-Yr.	cast	Measured	Runoff*	Average
Station	1955	Ave.	Period	1953	1952	1943-52
		LOWER CO	OLUMBIA BASI	IN		
Umatilla River Basin						
Umatilla River,	105.0	107	Apr-Sept.	c	103.0	97.8
nr. Gibbon						
Umatilla River,	205.0	108	Apr-Sept.	С	184.8	189.5
at Pendleton	200.0	109	Apr-July	С	180.5	184.8
McKay Creek	28.5	95	Apr-Sept.	С	23.3	30.1
nr. Pilot Rock	28.4	95	Apr-July	С	23.2	30.0
			1 0	_	-5	,,,,,
Walla Walla River						
Basin						
Walla Walla R., So.	64.0	82	Apr-Sept.	74.2	85.0	78.0
Fk., nr. Milton	53.0	82	Apr-July	50.4	70.4	64.2
· ·			.FJ	- '	10.42	04.2
John Day River Basin						
Strawberry Cr.	5.8	67	Apr-Sept.	11.1	10.5	8.7
nr. Prairie City		·	p2 2-p00	1111	±0•)	0.1
John Day River	35.0	65	Apr-Sept.	61.5	67.2	54.0
at Prairie City <sup>5</sup>	32.0	66	Apr-July	54.9	58.0	48.2
John Day River,	83.0	62	Apr-Sept.	165.3	172.6	134.6
Mid.Fk. at Ritter			upr -peb	105.5	112.0	134.0
John Day River,	175.0	64	Apr-Sept.	333.8	300 8	071 0
N.Fk., nr. Dale	-1700	04	175T -peb 0.	٥٠ ( ( (	309.8	271.0
10011110 11110 11110						
Crooked River Basin						
Crooked R.,	42.0	31	Ann Cont	772 6	מסל פ	700 0
nr. Post	42.0	) <u>+</u>	Apr-Sept.	173.6	205.8	133.9
Ochoco Res., net	10.5	<b>3</b> 0	Ann Cont		11 0	a) ~
inflow <sup>6</sup>	10.7	<b>)</b> ∪	Apr-Sept.	С	44.9	34.5
1111 1 OW						
Deschutes River Basin						
Crescent Creek	16.0	59	A C +	100	15.0	
at Crescent Lake 7	10.0	27	Apr-Sept.	40.9	47.2	27.2
	68.8	61.	۸ ۵ ۱	700 0		
Little Deschutes R.,	62.0	64 66	Apr-Sept.	138.3	171.9	107.7
nr. Lapine		66 83	Apr-July	118.8	154.9	94.1
Odell Cr.,	27.7	83	Apr-Sept.	37.2	44.1	33.3
nr. Crescent	۲8 A	Ωn	A			
Deschutes River,	58.0	81	Apr-Sept.	75.0	89.2	71.8
below Snow Creek	776 (	0 ~				a
Crane Prairie Res.	116.6	85	Apr-Sept.	С	С	136.7 <sup>d</sup>
inflow <sup>O</sup>						

<sup>\*</sup>Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. 1954 records not available at this time.

d1952 excepted.

Oregon State Engineer. 1994 records

50bserved flow / Prairie Power Canal.

60bserved flow of Ochoco Cr. / Canal / changes in storage of Ochoco Res.

70bserved flow / changes in storage of Crescent Lake Reservoir.

80bserved flow / changes in storage of Crescent Lake Reservoir.

81bs Peservoir. Prairie Reservoir and outflow, showing the loss in the Reservoir. cRecords not available.



Streamflow Forecasts	- March 1,	1955 (Con	t'd.)			
			eamflow in	Thousands	of Acre F	
Basin, Stream	Forecast	%	Fore-			10 - Yr.
and	Runoff	10-Yr.		Measured		Average
Station	1955	Ave.	Period	1953	1952	1943-52
Deschutes River Basin (Continued)	<u>n</u>					
Deschutes River	489.3	87	Apr-Sept.	661.2	765.7	560.8
at Benham Falls <sup>9</sup>	330.0	87	Apr-July	433.2	533.5	377.6
Tumalo Creek, nr. Bend <sup>10</sup>	39.0	70	Apr-Sept.	С	81.0	55.4
Squaw Creek, nr. Sisters	42.2	79	Apr-Sept.	57.8	58.8	53.7
White River,	128.1	72	Apr-Sept.	159.8	171.2	178.2
below Tygh Valley	116.0	73	Apr-July	142.2	153.7	158.2
Hood River Basin Hood River, W. Fk., nr. Dee Hood River, nr. Hood River	135.0 117.0 274.0 235.0	81 81 78 78	Apr-Sept. Apr-July Apr-Sept. Apr-July	138.9 118.0 314.5 258.7	155.8 135.9 324.7 276.3	166.6 144.8 351.1 299.1
Willamette River Bas: Row River, nr. Dorena McKenzie R., at McKenzie Bridge McKenzie River, nr. Vida South Santiam at Waterloo North Santiam at Mehamal2 Willamette River at Salem12	103.4 98.8 545.3 413.2 1148.0 937.0 538.0 504.0 807.0 715.0 4740.0 4220.0 150.6	96 95 88 87 86 87 86 86 85 93 93	Apr-Sept. Apr-July Apr-Sept. Apr-July Apr-Sept. Apr-July Apr-Sept. Apr-July Apr-Sept. Apr-July Apr-Sept. Apr-July Apr-Sept.	146.3 141.3 658.1 491.1 1465.2 1188.3 723.9 686.5 793.0 665.6 6085.7 5361.3	107.5 104.3 674.2 512.2 1434.3 1185.0 640.3 610.3 1016.4 917.3 5607.6 4977.5	108.2 103.9 616.3 472.2 1319.1 1087.6 620.8 587.9 939.0 839.7 5091.0 4550.0
Clackamas River, at Big Bottom Oak Grove Fk. abv. Power Intake Clackamas River abv. Three Lynx Clackamas River nr. Cazadero	120.7 172.3 133.6 542.0 454.0 720.0 652.0	81 85 83 81 83 84 87	Apr-Sept. Apr-July Apr-Sept. Apr-July Apr-Sept. Apr-July Apr-Sept. Apr-July	168.0 134.3 196.0 150.0 627.6 525.5 827.8 707.0	192.0 158.2 208.7 164.8 711.8 617.9 883.1 770.3	181.6 148.4 203.7 161.0 665.3 550.0 860.0 745.2

<sup>\*</sup>Discharge data from preliminary records of U. S. Geological Survey and

Crescent Lake Reservoirs.

10 Observed flow / Columbia Southern Canal.

11 Observed flow plus P.P. & L. Co. power canal.

Oregon State Engineer. 1954 records not available at this time. Observed flow / changes in storage in Crane Prairie, Wickiup and

<sup>12</sup> Observed flow / changes in storage in any of the following reservoirs which are above the station: Lookout Point, Detroit, Fern Ridge, Cottage Grove and Dorena.

cRecords not available.



			,			5.
Streamflow Forecasts	- March 1,	1955 (Cor	eamflow in	Thousands	of Acro F	00t
Pagin Stroom	Forecast	sonar str	Fore-	Thousands	or were r	10 - Yr.
Basin, Stream and	Runoff	10-Yr.	cast	Measured	Runoff*	Average
Station	1955	Ave.	Period	1953	1952	1943-52
5 04 02011	-///					
	OREGON AND	CALIFORM	VIA COAST BA	ASINS		
Umpqua River Basin	201.0	24		03.0.1	07.57.	ם היים היים היים היים היים היים היים הי
No. Umpqua River,	134.0	75	Apr-Sept.	212.4	217.6	178.5
below Lake Creek	50.7	73	Apr-Sept.	81.3	86.7	69.0
Clearwater River, above Trap Creek	50.1	10	whtsebr.	01.5	00.7	09.0
above frap creek						
Rogue River Basin						
Hyatt Res., net	3.1	53	Apr-Sept.	9.6	9.0	5.8
Inflow <sup>13</sup>		40				
Fourmile Lake,	5.0	68	Apr-Sept.	2.2	10.0	7.4
net Inflow 14		10				
Little Butte Cr.N.Ek.	10.2	62	Apr-Sept.	21.0	21.8	16.4
below Fish Lake 15	100	<b>5</b> /				01 -
Rogue R. So. Fk.,	63.5	76	Apr-Sept.	С	120.3	84.0
nr. Prospect <sup>16</sup>	35.0	76	Apr-July	С	104.1	71.9
Rogue R. Mid. Fk.,	60.0	75 75	Apr-Sept.	С	96.1	79.5
nr. Prospect1	47.0	75 78	Apr-July	C	76.1	63.0
Rogue River,	267.1	78	Apr-Sept.	416.4	477.1	344.5
above Prospect	225.0	78 78	Apr-July	344.5	404.9	288.8
Rogue River,	575.0	78 78	Apr-Sept.	С	1007.9	733.7
below South Fork	465.0 760.0	78	Apr-July	C 3076 0	831.2	597.4
Rogue R., at Raygold,	635.0	78	Apr-Sept.	1276.2 1069.7	1350.1 1150.0	972.4 817.7
nr. Central Point Rogue River,	720.0	77	Apr-July Apr-Sept.	C 1009.7	1311.7	939.2
at Grants Pass	120.0	1.4	whr-pehr.	G	1011	737.6
Applegate River,	113.0	93	Apr-Sept.	С	226.0	121.2
nr. Copper			Pr CP 01	- J	220.0	

180.5

99 Apr-Sept. c

241.8

182.5

Illinois River,

at Kerby

<sup>\*</sup>Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. 1954 records not available at this time.

<sup>13</sup> Observed flow of Keene Creek at Hyatt Prairie / storage changes / 1600 a.f. for estimated evaporation during April-September period.

<sup>140</sup>bserved outflow into Cascade Canal / storage changes / 1600 a.f. for

estimated evaporation during April-September period.

15 Observed flow plus changes in storage in Fish Lake Reservoir / 90% of Cascade Canal inflow.

<sup>160</sup>bserved flow / South Fork Power Canal.

<sup>17</sup>Observed flow / Middle Fork Power Canal.

CRecords not available.



Streamflow Forecasts - March 1, 1955 (Cont'd.)  Seasonal Streamflow in Thousands of Acre Feet											
				Thousands	of Acre F						
Basin, Stream	Forecast	%	Fore-	2.5	D 00	10 - Yr.					
and	Runoff	10-Yr.	cast	Measured		Average					
Station	1955	Ave.	Period	1953	1952	1943-52					
Mlamath River Basin											
Sprague River,	195.0	74	Apr-Sept.	394.5	561.6	264.4					
nr. Chiloquin	1//•0	f 44	mpr bepo.	27402	)	204.4					
Williamson River,	330.0	77	Apr-Sept.	650.2	831.3	425.9					
below Sprague R.	270.0	75	Apr-July	560.3	746.5	358.9					
Upper Klamatho Lake,	427,0	77	$\Lambda$ pr-Sept.	893.8	1151.2	556.5					
net Inflow 18	327.0	72	Apr-July	738.2	1005.3	451.9					
Clear Lake Res.,	37.0	43	Mar-July	79 <b>.7</b>	225.0	86.7					
net Inflow	3 5 0	2 ~		11 0	05. (	10.0					
Gerber Res.,	15.0	35	Mar-July	44.0	92.6	42.7					
net Inflow											
	GREAT BA	SIN INTE	RIOR DRAINAG	TI.							
	Oliver Dr.		· · · · · · · · · · · · · · · · · · ·	<i>(</i> 4 <u>11 )</u>							
Goose Lake Basin											
Drew Reservoir,	41.6	98	Mar-July	53.7	101.8	42.4					
net Inflow											
**											
Warner Lake Basin	3.0	0.5	Λ τ	00.0	mm 3	07 5					
Twentymile Cr. nr. Adel	18.0	83	Apr-June	20.0	77.1	21.7					
Deep Creek,	63.0	88	Apr-June	82.0	129.2	71.7					
above Adel	0).0	00	21p1 - o arre	02.0	147.4	1 - + 1					
Honey Creek,	14.1	86	Apr-June	17.0	29.9	16.4					
nr. Plush	·		1	·		,					
Chewaucan River											
Basin	20.0	~ a		0		0					
Chewaucan River,	38.2	50	Apr-June	103.8	150.3	76.8					
nr. Paisley											
Malheur and Harney				•							
Lakes Basin											
Trout Creek,	Not forec	ast	Apr-Sept.	11.2	24.5	9.6					
nr. Denio			r r		-4-7	,,,					
Donner und Blitzen	Not forec	ast	Apr-Sept.	72.1	123.4	67.3					
R.,nr.Frenchglen											
Silvies River,	25.0	23	Apr-Sept.	138.1	235.8	110.7					
nr. Burns											

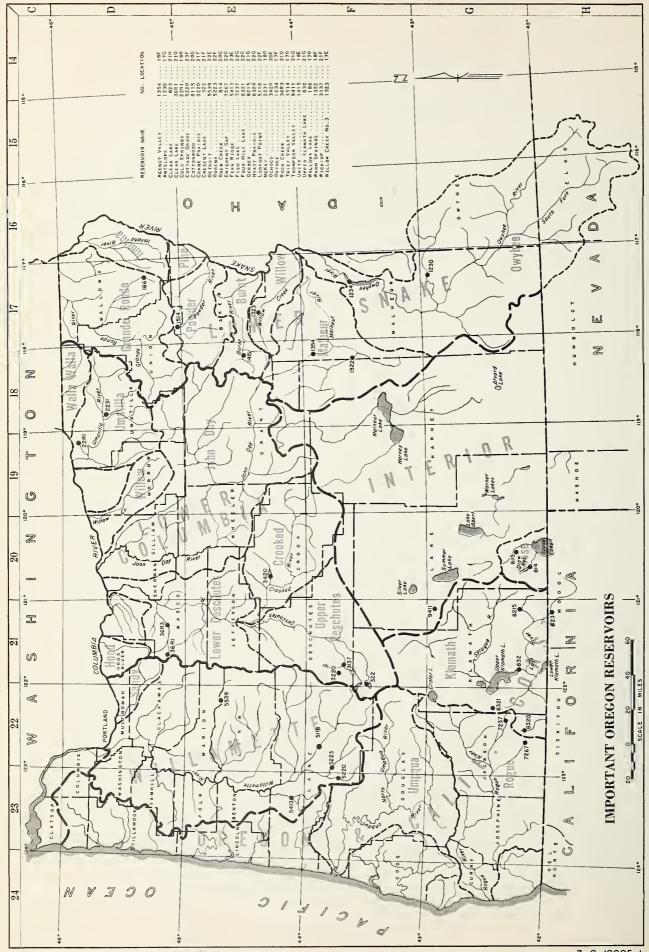
<sup>\*</sup>Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. 1954 records not available at this time.

<sup>18</sup> From COPCO records of inflow.

CRecords not available.







BASIN		USABLE	THOUSA		ET IN STO	RAGE ABOUT					
and STREAM	RESERVOIR	CAPACITY (M.A.F.)	: <b>1</b> 955	1954	1953	10-Yr.Avg. 1943-52					
UPPER COLUMBIA DRAINAGE  Lower Snake in Oregon											
<u>Owyhee</u>	Antelope Owyhee	36.5 715.0	N.R. 182.3	16.0 468.1	13.3 546.9	9.4 496.0					
Malheur	Warm Springs Agency Valley	191.0 60.0	27.5 23.6	121.9 29.2	144.1 34.7	73.1 34.8					
Burnt	Unity	25.2	3.3	8.6	8.7	8.7					
Grande Ronde	Wallowa Lake	40.9	17.8	33.3	27.8	18.2					
		LOWER COLU	MBIA DRAI	NAGE							
Umatilla	McKay Cold Springs	74.0 50.0	13.1 30.1	37.6 40.4	40.8 33.0	47.8 40.4					
Deschutes	Ochoco Crescent Lake Crane Prairie Wickiup	46.0 54.9 55.3 187.3	21.7 23.1 45.1 198.4	42.3 44.0 47.7 191.0	39.5 53.0 48.6 <sup>d</sup> 180.5	26.2 45.7 40.9 106.0					
<u>Willamette</u>	Cottage Grove Dorena Fern Ridge Detroit Lookout Pt.	30.1 <sup>a</sup> 70.5 <sup>a</sup> 94.2 <sup>a</sup> 340.0 <sup>a</sup> 350.0 <sup>a</sup>	6.3 14.0 25.8 52.7 68.0	7.6 16.6 26.3 166.8	9.3 16.6 31.4 61.8	7.3  30.8 					
	OREGON	AND CALIF	ORNIA COA	ST DRAINAC	<u>BE</u>						
Rogue	Fish Lake Fourmile Lake <sup>b</sup> Emigrant Gap Hyatt Prairie <sup>b</sup>	7.8 16.1 8.3 16.1	5.5 9.3 2.0 9.9	6.6 15.9 8.2 13.1	6.8 11.9 8.3 12.0	4.8 6.9 6.1 5.1					
Klamath	Upper Klamath L Gerber Clear Lake	к.584.0 <sup>с</sup> 94.0 440.2	366.9 27.4 223.0	491.7 51.5 282.0	482.0 64.4 267.6	360.8 30.5 191.1					
		INTERIO	R DRAINAG	E							
Goose Lake	Cottonwood Drew	4.1 62.5	0.2 24.0	0.0 44.2	0.6 46.3	1.6 38.9					

<sup>&</sup>lt;sup>a</sup>Storage space reserved for flood control. <sup>b</sup>By ditch to Rogue River side from Klamath

Drainage.

CBased on gage zero elevation of 4135.0.

dEstimated.

N.R. -- No Report.

The following tabulation of Oregon stream basin presents the water content of the snow about March 1, 1955 as percent of the same date in 1954 and 1953 and average of record:

1953 and average of record:					
	No. of	Yrs.		1, 1955	
DRAINAGE	Courses	of		as perce	
	Averaged	Record	1954	1953	Avg.
UPPER COLUMBIA DRAINAGE (Low	er Snake in	Oregon)			
Owyhee River	8	15 - 27	121	79	67
Malheur River	6 - 7	10 - 19	94	66	72
Burnt River	· .	10 - 19	83	64	67
Powder River	5 1 2 8 2	15 - 16	81	67	73
Pine Creek	í	4	62	42	
Imnaha River	2	11	50	47	55
Grande Ronde River	8	11 - 18	80	75	79
Wallowa River	2	11 - 10	50		۲. 12
Catherine Creek	2			47	55
	Ŧ	16	94	88	91
Main Grande Ronde	5	12 - 18	104	96	92
LOWER COLUMBIA DRAINAGE					
Walla Walla River	1	16	94	104	93
Umatilla River	5	12 - 18	144	112	108
Willow Creek	1	13	120	65	89
John Day River	11	11 - 19	89	72	77
North Fork	5	12 - 19	85	71	79
Middle Fork	5 3 1 2 4	11 - 19	82	70	73
Main Branch	3	18 - 19	90	70	75
South Fork	í	19.	113	109	87
Crooked River	2	17 - 18	103	103	75
Deschutes River	),	10 - 18	68	77	74
Hood River	3	7 - 17	85	112	95
Willamette Valley	10	10 - 17			
Sandy River		· · · · · · · · · · · · · · · · · · ·	·76	98	91
Clackamas River	2	13 - 17	84	104	103
	)	13 - 17	55	86	68
Santiam Rivers	3	14	77	92	89
McKenzie River	2	14	76	89	86
Middle Fork	3 3 2 2	10 - 16	73	102	88
Coast Fork	1	16	82	128	112
000000000000000000000000000000000000000					
OREGON AND CALIFORNIA COAST I					
Umpqua River	2	16 - 26	70	86	97
Rogue River	10 - 12	11 - 21	60	64	72
Upper Rogue	4	11 - 21	62	58	66
Bear-Little Butte Cr.	4 - 5	17 - 21	69	68	77
Applegate River	2 - 3	11 - 17	48	71	72
Illinois River	2	13 - 15	55	89	91
Klamath Lake Basin	16 - 17	11 - 28	64	63	69
Williamson River	12	11 - 28	58	56	64
Sprague River	7	14 - 28	60	68	70
Gerber-Clear Lake Basin	3	14 - 23	76	78	79
	,	-4 C)	, 0	10	17
INTERIOR DRAINAGE					
Goose Lake Basin	4	11 - 23	81	80	82
Warner Lake Basin	ī	11	94	82	89
Silver Lake Basin		14	50	118	89
Chewaucan River	1 3 5 <b>-</b> 6	15 - 16	45	54	67
Harney Basin	5 - 6	15 - 20	125	79	81
articy Dasti		1) - 20	12)	17	0.1

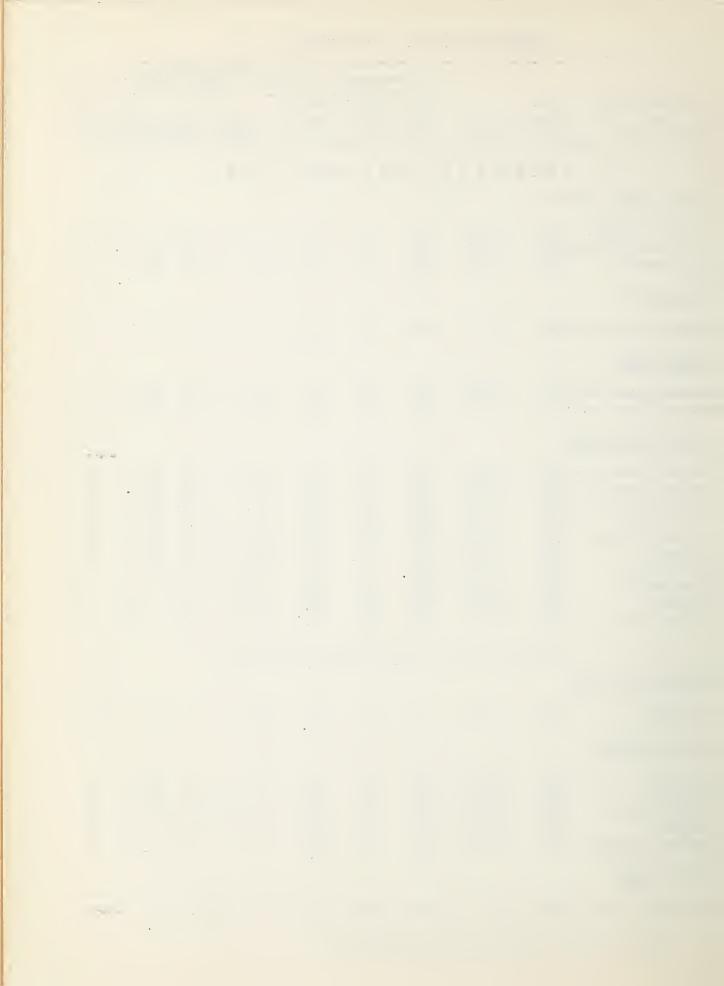


						, =///			
					W COVER				
DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	Date of Survey		Water Content (In.)		Conten	t (In.	Years ) of Record
	PPER	COL	U M B I R SNAKE	A D	RAII				
*Bear Creek *Granite Peak Upper Jack Creek *Midas *Upper Buckskin *76 Creek *Fox Creek Lower Jack Creek Rodeo Flat Big Bend Fry Canyon *Lower Buckskin *Martin Creek Gold Creek *Disaster Peak Silver City South Mountain #2 Taylor Canyon *Tremewan Ranch	15H1 17H4 16H2 16H3 17H1 15H3 15H2 16H1 15H6 15H4 15H7 17H2 17H3 15H5 18H1 16F3 16G1 15H9 15H8	7800 7800 7250 7200 7200 7100 6800 6800 6700 6700 6700 6600 6500 6400 6340 6200 5700	3/2 3/4 2/28 Measure Not sur 2/25 3/1 2/28 2/27 2/26 2/27 3/1 3/2 2/26 3/6 3/2 2/28 2/28 2/28		13,0 7.1 7.6 elayed 7.7 14.2 5.7 10.5 5.1 6.5 7.7 10.4 8.9 1.3	14.400.77.6 - 7.5.89.6 1.3.66.74 12.65.4	8.5 10.8 0.0 5.1 15.0 - 3.4 9.2 7.8 7.0 5.1 6.8 5.5 15.0 14.4 8.4 6.0	16.5 9.6 4.4 9.2 12.0 8.5 9.0 9.1 5.5 17.5 14.8 11.3 8.2	21 23 18 14 20 8 21 27 21 26 21 20 23 22 6 9 15 20 23
*Barney Creek Blue Mountain Spg. Crane Prairie Lake Creek Rock Spring Stinking Water Eldorado Pass BURNT RIVER	18E14 18E16 18E19 18E18 18F1 18F4 18E20	5950 5900 5375 5120 5100 4800 4600	3/1 3/2 3/2 3/2 2/27 2/28 2/28	22 42 29 35 25 17	4.7 10.4 7.0 9.4 5.3 3.8 3.5	7.1 14.6 7.7 9.3 3.8 0.0 No pr	7.1 17.3 11.6 13.1 6.8	8.0 15.3 9.6 10.7 6.5 5.6 record	10 19 16 16 19 15
Barney Creek Dooley Mountain *Gold Center Tipton Blue Mountain Smt. Eldorado Pass POWDER RIVER	18E14 17E1 18E8 18E9 18E13 18E20	5950 5430 5340 5100 5098 4600	3/1 2/28 2/25 3/4 2/28 2/28	22 24 35 28 24 15	4.7 5.6 8.8 7.6 5.8 3.5	7.1 5.5 12.0 7.6 6.8 No pr	7.1 11.1 13.3 10.4 8.8 evious	8.0 9.2 12.3 10.4 8.9 recore	10 16 15 11 19
Anthony Lake Goodrich Lake Bourne	18E1 18E6 18E5	7125 6775 5800	2/27 2/28 2/26	67 57 46	18.2 17.5 11.1	22.9 34.9 14.3	23.2 36.5 18.6	24.1 36.9 15.4	15 7 18

<sup>\*</sup>Not located directly on this drainage area. <sup>a</sup>Telegraphic.



					SNOW COV	PR MEAS	HREMEN	ጥር	
				1955			ast Re		
DRAINAGE BASIN	No.		Date of	Snow	Water Content	Lint on	Conto	nt (Tn	Years ) of
and SNOW COURSE	or State	Elev.	Survey		(In.)	1954		nt (In. Avg.	Record
	פת ת זו	D C O I	כל זוג נז	T A D					
	UPPE	<u>r</u> <u>c</u> <u>o</u> <u>i</u>	<u>UMB</u> .	<u> </u>	RAIN	A G E			
POWDER RIVER (Cor	nt'd)								
Dooley Mountain	17E1	5430	2/28	24	5.6	5.5	11.1	9.2	16
Eilertson Meadows *Gold Center	18E3 18E8	5400 5340	3/3 2/25	38	9.4	11.0	12.6 13.3	11.6	16 15
	TCEO	<i>5</i> 540	2/25	35	8.8	12.0	1)•)	12.5	75
PINE CREEK									
Schneider Meadows	: 17D8	5400	2/28	59	16.4	26.5	39.3	33.7	4
IMNAHA RIVER									
		-1.0-							
*Aneroid Lake No.1 *Aneroid Lake No.2		7480 7000	2/27 2/27	72 56	17.2 14.8	35.8 27.9	38.3 30.3	32.4 25.7	11 11
		,	-/-1	)0	14.0	-1.7	J <b>U</b> •J	-2•1	
GRANDE RONDE RIVE	<u>R</u>								
Aneroid Lake No.1		7480	2/27	72	17.2	35.8	38.3	32.4	11
Anthony Lake Aneroid Lake No.2	18EL 17D2	7125 7000	2/27 2/27	67 56	18.2 14.8	22.9 27.9	23.2	24.1 25.7	15 11
Moss Spring	17D6	5850	2/28	61	19.1	20.4	21.8	21.0	16
Beaver Reservoir Tollgate	18D9 18D3	5340 5070	2/26 3/1	32 75	8.7 23.5	10.2	10.3	10.5 25.3	15 16
*Lucky Strike	18D6	5050	2/28	41	10.5	9.9	14.8	12.2	16
Schoolmarm Meacham	18D7 18D5	4775 4300	3/3 3/1	36 55	8.4 14.2	3.4 4.6	4.0 7.3	4.3 9.3	8 18
County Line	18D8	4800	3/3	38	8.4	4.4	5.3	5.8	3
	LOWE	R COL	имв:	I A D	RAIN	AGE			
						= = =			
WALLA WALLA RIVER									
Tollgate	18D3	5070	3/1	75	23.5	24.9	22.7	25.3	16
UMATILLA RIVER									
Arbuckle Mountain	•	5400	2/28	38	10.1	8.4	15.5	11.3	13
Tollgate Lucky Strike	18D3 18D6	5070 5050	3/1 2/28	75 41	23.5 10.5	24.9 9.9	22 .7 14.8		16
Meacham	18D5	4300	3/1	55	14.2	9.9 4.6	7.3	9.3	16 18
Emigrant Springs	18D4	3925	3/1	43	11.8	1.0	2.5	7.0	18
WILLOW CREEK									
Arbuckle Mountain	19D2	5400	2/28	38	10.1	8.4	15.5	11.3	13
*Not located	directl	y on thi	s draina	age are	a.				



	OREGON	SNOW SU	LVEID -	ABOUT	PIMON I	, 19 <u>5</u> 5			
					W COVER				
DRAINAGE BASIN	No.		Date	1955 Snow	Water		Past R	ecord	Years
and	or		of		Content	Water	Conte	nt (In.	
SNOW COURSE	State	Elev.	Survey		(In.)	1954	1953		Record
	LOWE	R CO	L U M 1	втА	DRA	T N A	G E		
		= = =	= = = :	2 2 2		_ = =			
JOHN DAY RIVER									
*Anthony Lake	18E1	7125	2/27	67	18.2	22.9	23.2	24.1	15
*Snow Mountain Olive Lake	19F1 18E7	6300 6000	Not si 2/24	urveyed 51	l. 13.4	18.2	 19.1	10.8	5 19
Blue Mountain Spgs		5900	3/2	42	10.4	14.6	17.3	15.3	19
Arbuckle Mountain	19D2	5400	2/28	38	10.1	8.4	15.5	11.3	13
Gold Center *Izee Summit	18E8 19E9	5340 5293	2/25 3/1	35 28	8.8 7.1	12.0	13.3	12.3	15 19
Starr Ridge	19E7	5156	3/1	21	4.9	4.8	5.1	5.9	19
Tipton Blue Mountain Summi	18E9	5100 5098	3/4 2/28	28 24	7.6 5.8	7.6 6.8	10.4	10.4	11
*Lucky Strike	18D6	5050	2/28	11 11	10.5	9.9	14.8	12.2	19 16
Beech Creek Summit	19E2	4800	2/28	22	5.2	3.4	7.0	6.3	18
Schoolmarm	18D7	4775	3/3	36	8.4	3.4	4.0	4.3	8
CROOKED RIVER									
Derr	19E3	5670	2/28	29	7.5	No p	revious	recôro	i.
Ochoco Meadows	20E2	5200	3/2	29	6.4	8.5		10.0	18
Tamarack Marks Creek	19E4 20E1	4800 4540	3/8 3/1	23 15	6.2 4.5	4.1	6.2 1.2	6.2 4.6	12 17
DESCHUTES RIVER			-,					4**	_,
DESCROTES RIVER									
New Dutchman Flat Paulina Lake	21E2	6400	2/27	82	28.0	56.3	52.2	54.0	7
Windigo Pass	21F13 22F15	6330 5800	2/28 2/24	36 68	11.6 24.3		evious 43.1	record	4
Three Creeks Meadow	s 21E13	5600	2/26	36	9.3	24.4	19.0	22.1	8
Willamette Pass Bobby Lake	22 <b>E1</b> 4 21F16	5600 5450	2/23 3/2		24.5 24.7		39.5	44.3 record.	4
Tangent	21F3	5400	$\frac{3}{2}$	84 <b>3</b> 9	12.8	-	27.4	29.4	3
Fire Road	21F14	5050	2/28	20	5.4	No pr	evious	record	•
Cascade Summit New Crescent Lake	22F3 21F10	4880 4800	3/1 2/23		22.1		26.9 18.2	31.7 19.9	10 3
*Chemult	21F11	4760	2/28	27	6.7	14.1		11.8	18
Crescent Lake	21F9	4760	2/23	30	11.0	17.6	15.7	13.9	6
Hogg Pass Black Pine Springs	21E6 21E11	4755 4600	3/2 2/26	114 11	34.2 <sup>b</sup>	43.0	38.5 3.0	40.0 6.5	14
Hungry Flat	21F4	4400	2/27		5.0	11.2		9.5	3 3
Paulina Prairie Clear Lake	21F15 21D12	4285 3500	2/28	7.3				record.	
	21012		2/25	32	8.4	14.2	9.8	12.6	13
HOOD RIVER									
Tilly JaneMt.Hood Red Hill		6000		rement	delayed	45.2 <sub>h</sub>	38.4	47.7	7
Greenpoint Reserv.		4400 3400	2/27 3/5	99 58	39.0 15.2 <sup>a</sup>	17.2	5.8	51.6 18.3	7 6
*Not located d			drainag	c area	•	-,•-	<b>7.</b> 0	±0•0	J
<sup>a</sup> Telegraphic. <sup>b</sup> Partly estima	ted.								



SNOW COVER MEASUREMENTS									
				1955	W COVIAL		Past Re		
DRAINAGE BASIN	No.		Date		Water				Years
and	or		of		Content				
SNOW COURSE	State	Elov.	Survey	(In.)	(In.)	1954	1953	Avg.	Record
<u>L</u> (	<u>WER</u>	<u>C O L</u>	<u>U M B</u>	I A D	RAI	N A G	<u> </u>		
WILLAMETTE VALLEY S	STREAMS								
SANDY RIVER <sup>1</sup>									
Phlox Point-Mt.Hood Still Creek *Clear Lake	1 21D8 21D9 21D12	5600 3700 <b>3</b> 500	3/4 3/3 2/25	159 90 32	57.6 <sup>a</sup> 25.0 <sup>a</sup> 8.4	65.6 28.8 14.2	57.9 20.2 9.8	54.4 21.7 12.6	16 17 13
CLACKAMAS RIVER									
*Clear Lake Peavine Ridge Clackamas Lake Big Bottom Lake Harriet	21D12 21D14 21D13 21D15 21D16	3500 3500 3400 2118 2045	2/25 2/27 2/24 2/27 2/27	32 49 29 25 7.8	8.4 13.3 8.1 6.6 1.0	14.2 22.7 17.1 10.5 5.3	9.8 14.4 10.4 3.7 1.0 <sup>b</sup>	12.6 16.9 14.4 8.6 3.9	13 17 14 4 4
SANTIAM RIVERS									
Hogg Pass Santiam Junction Marion Forks Breitenbush Whitewater Bridge Detroit (new town) Detroit Dam Mill City Snow Line: Approxim	21E6 21E5 21E4 21E2 21E3 22E1 22E2 22E3 nately 1	4755 3990 2730 2325 2175 1500≠ 1580 826	3/2 3/1 3/1 Not su 3/1 3/1 3/1	114 70 47 rveyed 22 0 0	34.2 <sup>b</sup> 20.2 14.5 5.8 0.0 0.0 0.0	43.0 28.9 17.5  6.8 0.0 0.0	38.5 22.4 13.7  2.0 0.0 0.0	40.0 23.5 14.1 4.8 9.1 1.1 0.8 0.0	14 14 10 5 4 5
McKENZIE RIVER									
McKenzie Hogg Pass Santiam Junction Dead Horse Grade White Branch Slide Lost Creek Ranch McKenzie Bridge Vida Snow Line: Approxim	22E4 22E5 22E6	4800 4755 3990 3800 2800 1956 1372 800	3/4 3/2 3/1 3/4 3/4 3/4 3/4	119 114 70 75 44 25 0	36.7 34.2b 20.2 21.8 11.3 8.1 0.0	42.4 43.0 28.9 21.8 0.0	39.2 38.5 22.4 16.2 3.8 0.0 0.0	51.1 40.0 23.5 26.3 7.5 0.0 3.3 0.0	5 14 14 4 1 3

<sup>\*</sup>Not located directly on this drainage area.

Not strictly a part of the Willamette Drainage; these surveys are indicative of west slope conditions.

bPartly estimated. aTelegraphic.



				SN 1955	OW COVER		REMENTS Past Re		
DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	Date of Survey	Snow Depth	Water Content (In.)	***************************************		nt (In.	Years ) of Record
WILLAMETTE VALLEY ST	TREAMS (	Cont'd	<u>.)</u>						
MIDDLE FORK WILLAM	ETTE RI	VER							
Willamette Pass Cascade Summit Champion Salt Creek Falls Railroad Overpass McCredie Springs Oakridge Meridian Dam Snow Line: Approxima	22F14 22F3 22F9 22F4 22F5 22F6 22F7 22F8 tely 26	5600 4880 4500 4000 2750 2120 1310 750	2/23 3/1 3/1 3/1 3/1 3/1 3/1 3/1	65 71 82 51 16 0	24.5 22.1 27.0 14.6 6.2 0.0 0.0	46.0 34.4 32.9 18.4 3.0 0.0 0.0	39.5 26.9 21.1 14.6 1.0 0.0 0.0	44.3 31.7 24.2 22.6 6.6 1.1 T	4 10 16 6 6 6 5 5
COAST FORK WILLAME	CTTE RIV	LR (Ro	w River)						
Champion Golden Curry Creek Whaver Creek Lund Park Layng Creek R.S. Snow Line: Approxima	22F9 22F10 22F11 22F12 22F13 tely 220	4500 3136 2440 1740 1200	3/1 3/1 3/1 3/1 3/1	82 30 13 0	27.0 7.2 2.3 0.0 0.0	32.9 T 0.0 0.0	21.1 2.7 0.7 0.0 0.0	24.2 7.7 2.5 1.8 0.0	16 5 4 5 5
MARY'S RIVER									
Mary's Peak	23E1	3620	3/1	40	14.7	9.9	4.1	6.5	2
OREGON A  UMPQUA RIVER	<u>N D</u> C	V T I	FORN	<u>I</u> <u>A</u>	<u>C O A S</u>	<u>T</u> <u>D</u>	RAI	N A G	E
Windigo Pass Diamond Lake Whaleback Champion Nurch Uapqua Guoleway Mountain Gooleway Gap	22F15 22F18 22G1 22F9 22F16 23G1 23G2	5800 5315 5140 4500 4215 3780 3050	2/24 2/24 2/27 3/1 3/1 2/28 2/28	68 44 74 82 49 33	24.3 14.5 23.1 27.0 13.4 5.3 3.6	45.2 26.3 38.1 32.9 17.9	43.1 27.4 35.1 21.1 18.4	46.0 18.4 36.8 2h.2 17.9 3.5 1.1	4 26 7 16 3 8
ROGUL RIVER									
Wagner Dubte Seven Lakes No. 1 Big Red Mountain Lattle Red Mountain *Park Headquarters Scragg Mountain Seven Lakes No. 2  *Not located dis	22G18 22G10 22G21 22G22 22G5 22H1 22G11	6900 6800 6500 6500 6450 6200	3/6 3/6 2/28 2/25 2/28	32 103 61 46 104 37 85	9.8 35.6 20.6 16.5 32.3 16.3 26.3	19.1 59.9 <sup>b</sup> 38.9 29.7 55.2 38.7 38.5	20.0 57.8 33.5 26.5 62.5  39.0	15.4 49.0 29.3 22.5 55.2 26.6 37.0	17 7 6 6 11 11 7

\*Not located directly in this drainage area. <sup>a</sup>Telegraphic. <sup>b</sup>Partly estimated.



					OW COVER	MEASU			
DRAINAGE BASIN	No.		Date	1955 Snow	Water		Past F	tecora	Years
and	or		of		Content	Water			
SNOW COURSE	State	Elev.	Survey	(In.)	(In.)	1954	1953	Avg.	Record
OGUE RIVER (Contid	<u>)</u>								
Innie Spring Fourmile Lake Grayback Peak Gillie Creek Divide Maleback Hobart Lake Hyatt Prairie Res. Fish Lake Giskiyou Summit House Fage Mountain Fregon Caves Hooloway Mountain Gilver Burn Houth Fork Canal	22G6 22G12 23G3 22G13 22G1 22G17 22G16 22G14 22G20 23G4 23G5 23G6 23G1 22G2 22G2	6018 6000 6000 5300 5140 5010 4900 4865 4630 4400 4045 4000 3780 3720 3500	2/28 3/2 2/27 3/3 2/27 2/24 2/23 3/1 2/27 3/2 2/25 2/28 2/28	88 60 62 60 74 10 17 32 15 21 28 3.6	5.3 12.2	No pr  16.9	evious  16.1	39.2 23.6 21.0 20.3 36.8 7.0 10.1 10.6 6.8 5.2 record record 3.5 12.0	8 17
oolaway Gap	23G2	3050	2/28 2/28	12 15	2.7 3.6	2.9	T 	3.9 1.1	18 8
LAMATH LAKE BASIN									
ake of the Woods yatt Prairie Res. erber ly 101 Ranch(COPCO) hemult amsey (COPCO) irk (COPCO) eatty (COPCO) arrmian Lodge(COPCO) hiloquin (COPCO) ort Klamath (COPCO)	20H2 22G15 22G16 21G4 10 21F11 12 6 1 4 0) 8 3 5 21G3 rectly	4150 5100	2/26 2/28 2/28 2/28 3/2 3/7 3/1 2/25 3/1 3/3 Not sur 2/28 2/28 2/28 2/28 2/28 2/28 2/28 2/2	32 17 13 16 27 ment d 20 2.5 26 12 T 14	35.6 32.3 26.3 26.2 21.2 5.3 6.0 13.6 6.1 20.1 11.8 5.1 3.6 2.1 6.7 elayed 6.5 0.1 11.2 4.8 T	22.8  14.4 12.8 0.0 0.0 14.1	19.3 57.8 62.5 39.0 48.4 23.4 8.5 7.0 28.9 6.8 22.2 2.8 16.9 17.4 0.0 3.8 0.0 9.0 0.0 0.0	15.1 49.0 55.2 37.0 39.2 23.6 9.0 6.6 25.1 20.3 3.1 9.8 10.1 3.0 1.6 11.8 2.4 4.0 5.7 4.0 5.9 6.8	15 7 11 7 21 2 14 23 17 16 21 12 18 20 4 28 18 25 27 28 27 28 27 28 27 28 27 28 27 28 27 28 27 28 28 29 29 29 29 29 29 29 29 29 29 29 29 29



			SNOW COVER MEASUREMENTS						
DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	Date of Survey	Depth	Water Content (In.)	castle-2-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	Past R Conte 1953	nt (In.	Years ) of Record
	Ī	N T E R	<u>I O R</u>	DRA	I N A	<u>G</u> E			
GOOSE LAKE BASIN									
Camas Creek Strawberry Quartz Mt.(COPCO) Quartz Mountain	20G8 20G9 9 20G6	5720 5600 5504 5320	3/1 3/7 3/1 3/1	38 23 24 20	9.4 5.3 6.0 6.1	10.0 7.8 7.5 7.7	11.4 8.5 7.0 6.8	10.6 9.0 6.6 6.4	11 14 23 16
WARNER LAKE BASIN									
*Camas Creek	20G8	5720	3/1	38	9.4	10.0	11.4	10.6	11
GUANO LAKE BASIN									
Bald Mountain	19H1	6720	3/2	17	3.9	0.6	1.0	3.6	14
CHEWAUCAN RIVER									
*Summer Rim Mill Creek *Quartz Mountain	20G2 20G4 20G6	7200 6200 5320	2/26 2/27 3/1	33 32 20	8.6 5.1 6.1	24.3 12.2 7.7	19.3 10.7 6.8	15.1 7.9 6.4	15 15 16
SILVER LAKE BASIN									
Silver Creek	21F12	4900	2/28	14	3.3	6.6	2,8	3.7	14
HARNEY BASIN									
Snow Mountain Izee Summit Idlewild Camp Starr Ridge Lake Creek Rock Spring Stinking Water	19F1 19E9 18F3 19E7 18E18 18F1	6300 5293 5200 5156 5120 5100 4800	Not sur 3/1 2/28 3/1 3/2 2/27 2/28	28 22 21 35 25	7.1 4.2 4.9 9.4 5.3 3.8	6.3 3.5 4.8 9.3 3.8 0.0	6.5 7.4 5.1 13.1 6.8	10.8 8.2 5.9 5.9 10.7 6.5 5.6	5 19 20 19 16 19
ALVORD LAKE BASIN									
*Disaster Peak	18H1	6500	2/26	25	5.7	7.3	15.0	17.5	6
McDERMITT CREEK									
Disaster Peak	18H1	6500	2/26	25	5.7	7.3	15.0	17.5	6

<sup>\*</sup>Not located directly on this drainage area. <sup>a</sup>Telegraphic.



				SN	OW COVER	MEASU	REMENTS		
				1955			Past Re		
DRAINAGE BASIN and	No.		Date of	Snow	Water Content	Motor	Centon	+ / Tn	Years
SNOW COURSE	State	Elev.		* .		1954	1953		Record
HOOD RIVER		<u>F</u> E	B R U A	RY	<u>1</u> , <u>1</u> <u>9</u>				
HOOD RIVER						٦.			
Red Hill	21D4	7700	2/6	76	33.1	48.6 <sup>b</sup>	30.4	51.6	7
		<u>F</u> E B	RUA	<u>R Y 1</u>	<u>5</u> , <u>1</u> <u>9</u>	<u>5</u> <u>5</u>			
MALHEUR AND BURNT	RIVERS								
Eldorado Pass	18E2O	4600	2/17	13	2.9	No pro	evious	record	
DESCHUTES RIVER									
Cascade Summit Hogg Pass	22F3 21E6	4880 4755	2/14 2/15	52 70	17.8 25.2	31.6 41.7	23.5 34.1	33.4 43.6	5 5
WILLAMETTE VALLEY	STREAMS								
SANTIAM RIVERS									
Hogg Pass Santiam Junction Marion Forks Whitewater Bridge Detroit (new town) Detroit Dam Mill City Snow Line: Approx	21E6 21E5 21E4 21E3 22E1 22E2 22E3 rimately	4755 3990 2730 2175 1500/ 1580 826	2/15 2/15 2/15 2/15 2/15 2/15 2/15	70 45 28 11 0 0	25.2 17.3 10.0 4.2 0.0 0.0	41.7 24.8 15.5 6.3 2.3 0.0	34.1 18.7 8.7 0.0 0.0 0.0	43.6 28.5 17.4 10.1 2.8 2.3 0.0	5554543
McKENZIE RIVER									
Hogg Pass Santiam Junction	21E6 21E5	4755 3990	2/15 2/15	70 45	25.2 17.3	41.7 24.8	34.1 18.7	43.6 28.5	5 5
MIDDLE FORK WILLAMETTE RIVER									
Cascade Summit Champion Salt Creek Falls Railroad Overpass McCredie Springs Oakridge Meridian Dam Snow Line: Approx	22F3 22F9 22F4 22F5 22F6 22F7 22F8 cimately	4880 4500 4000 2750 2120 1310 750 2400'	2/14 2/13 2/14 2/14 2/14 2/14 2/14	52 55 34 14 0 0	17.8 21.5 11.6 4.8 0.0 0.0	31.6 26.5 15.8 4.8 0.0 0.0	23.5 19.5 11.0 1.0 T 0.0	33.4 30.1 21.0 7.2 2.6 0.0 0.0	5666655

b<sub>Partly</sub> estimated



				MEASUREMENTS					
DRAINAGE BASIN	No.		Date	1955 Snow	Water		Past Re	cora	Years
and and	or		of		Content	Water	Conten	t (In.	
SNOW COURSE	State	Elev.	Survey	(In.)	(In.)	1954	1953		Record
	m	TT A TO 3	. , ~	٦ ٥ ٢		O N	D)		
	F E B R	UARI	<u>.</u> <u>+</u> <u>2</u> ,	195	5 (0	O N T'	<u>D</u> )		
WILLAMETTE VALLEY	STREAMS	(Cont'd	.)						
COAST FORK WILL	METTE RI	VER							
Champion	22F9	4500	2/13	55	21.5	26.5	19.5	30.1	6
Golden Curry	22F10	3500	2/13	15	6.0	6.0	2.0	8.1	5
Weaver Creek Lund Park	22Fll 22Fl2	2440 1740	2 /13 2/13	6 0	1.3	0.0	T 0.0	1.8 2.5	7
Layng Creek R.S.	22F13	1200	2/13	0	0.0	0.0	0.0	0.7	5
	kimately		-, -,						
UMPQUA RIVER									
Champion	22F9	4500	2/13	55	21.5	26.5	19.5	30.1	6
ROGUE RIVER									
Big Red Mountain	22G21	6500	2/14	51	18.1	No pre	evious :	record	•
Little Red Mountai		6500	2/14	37	13.9			record	
Siskiyou Summit	22G2O	4630	2/13	11	4.9	14.7	8.2	12.9	5
KLAMATH RIVER									
Lake of the Woods	22G15	4960	2/15	31	9.4	14.0	14.2	16.7	4
Gerber	21G4	4850	2/15	10	3.0	2.6		3.7	3
	MARC	H 1,	195	<u>A</u> <u>I</u>	D E M	<u>D</u> <u>U</u> <u>M</u> )			
UMPQUA RIVER									
Trap Creek	22F17	3800	3/1	50	15.1	No pre	evious	record	•
OWYHEE RIVER									
Cliffs	16G2	5200	3/5	19	5.0	No pre	evious	record	
Lowry Ranch	16G3	4800	3/2	17	3.7			record	



	Oct. 1951	uflow in Thous 4 - Feb. 1955	Feb.	1955
BASIN, RIVER and STATION	Total	As percent of 1938-52 Average	Total	As percent of 1938-52 average
UPPER COLUMBIA DRAINAGE (Lower Snake in Oregon)				
Owyhee Res. net inflow	61.0	40	12.6	18
LOWER COLUMBIA DRAINAGE				
Umatilla R. nr. Umatilla John Day R. at Service Cr. Deschutes R. at Moody Hood R. and conduit nr. Hood R. Willamette R. at Salem Willamette R. at Albany M.F. Willamette R. below North Fk.	47.7 116.0 1525.0 268.0 6324.0 3390.0 561.0	32 33 90 71 61 55 55	12.3 26.1 302.0 61.6 1222.0 722.0 136.0	23 21 77 69 47 46 56
OREGON AND CALIFORNIA COAST DRAINAGE				
Umpqua R. nr. Elkton Rogue R. at Raygold Upper Klamath Lake net inflow	1582.0 531.0 593.0	47 52 109	452.0 115.0 107.0	48 41 86

<sup>&</sup>lt;sup>a</sup>Preliminary data supplied by: U. S. Geological Survey, Current Records Center, Portland, Oregon; The California Oregon Power Co., Medford, Oregon; and North and South Boards of Control, Owyhee Project, Nyssa, Oregon.



DRAINAGE DIVISION	SeptOct	LL Nov.1954 Departure		Feb. 1954-155 Departure <sup>b</sup>				
Southeastern	0.96	- 1.72	2.55	-1.25				
Blue Mountains	2.38	- 2.81	4.51	<b>-</b> 2.62				
Wallowa Mountains	3.01	<b>₽</b> 2.75	4.34	<b>-</b> 2.17				
Lower Columbia	3.14	- 2.21	3.22	<b>-3.</b> 69				
Upper Deschutes	1.12	- 2.79	1.58	<b>-</b> 3.63				
Willamette Valley	10.91	- 6.72	15.02	-7.87				
Southwestern	3.16	- 4.68	6.50	-4.79				
South-Central	1.49	- 2.18	2.47	-2-45				
Southeastern	Southeastern - Owyhee and lower Malheur drainages.							
Blue Mountains	Blue Mountains  - Upper valleys of the Umatilla, John Day and Malheur, and the Powder, Burnt and Silvies drainages.							
Wallowa Mountains	- Imnaha, W	allowa and	Catherine d	rainages.				
Lower Columbia	- Lower valleys of the Walla Walla, Umatilla, John Day and Deschutes, and the Hood and Sandy drainages.							
Upper Deschutes	- Upper Des	chutes and	Crooked dra	inages.				
Willamette Valley	- All Willa	mette drair	nages.					
Southwestern	- Umpqua, R	logue and Wi	lliamson dr	ainages.				
South-Central	- Sprague, Lost and Interior Basin drainages.							

a - Preliminary analysis by U. S. Weather Burcau.

b - Departure from 10-year (1943-52) drainage division average.

Note- Precipitation shown in inches.



The following organizations cooperate in the Oregon snow survey work:

### STATE

Idaho Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon State Engineer and corps of State Watermasters
Oregon State Highway Engineers
Soil Conservation Districts of Oregon

## FEDERAL

Department of Agriculture
Cooperative Extension Service
Forest Service
Soil Conservation Service
Department of Commerce
Weather Bureau
Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
Indian Service
National Park Service
Department of National Defense
Army Engineer Corps

# PUBLIC UTILITIES

California-Pacific Utilities Company Pacific Power and Light Company Portland General Electric Company The California Oregon Power Company

#### MUNICIPALITIES

City of Baker City of La Grande City of The Dalles City of Walla Walla

#### IRRIGATION DISTRICTS

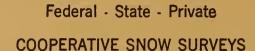
Associated Ditch Companies
Central Oregon Irrigation District
Deschutes County Municipal Improvement District
East Fork Irrigation District
Grants Pass Irrigation District
Jordan Valley Irrigation District
Lakeview Water Users, Incorporated
Medford Irrigation District
Ochoco Irrigation District
Rogue River Irrigation District
Talent Irrigation District
Vale-Oregon Irrigation District
Warmsprings Irrigation District

## PRIVATE ORGANIZATIONS

Amalgamated Sugar Company
The Crag Rats, Hood River, Oregon







Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"